Title of the Research: A Critical Review and Analysis of Organic Agriculture Policies in India

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Proposed Ph.D Research Synopsis

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A Critical Review and Analysis of Organic Agriculture Policies in India

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1. Introduction:

More and more farmers across the world are turning to organic agriculture. There is a growing consciousness about benefits of organic agriculture as a means to ensuring sustainability and true food security in long run. The World of Organic Agriculture 2013 survey by Research Institute of Organic Agriculture (FiBL) and International Federation of Organic Agriculture Movements (IFOAM) reported that in total 69.7 million hectares (agricultural and non-agricultural areas) were organic and there were 1.8 million organic producers worldwide in 2011. The global market for organic food sales was US $ 63 billion in 2011 and it has expanded 170% since 2002.

In India, the area under organic farming has been increasing exponentially from 0.04 million hectares in 2003-04 to 5.55 million hectares of cultivated land under certification in 2011-12, and produced 3.9 million MT of certified organic products in 2010-11 with involvement of around 10 million farmers. As per the Agricultural and Processed Food Products Export Development Authority (APEDA), India exported 300 organic items with a total volume of 115,417 MT and realization of INR 8.39 billion in 2011-12 and the export market for Indian organic products is expected to grow at 60-70% per annum and the domestic demand for organic food is increasing at 20-22% per annum (Yes Bank, 2013).

Agriculture is a state subject in India. As per the recommendations of central government of India, the state governments formulate its own agricultural policies. Thus, the policies, implementation plans and growth in organic agriculture differ widely between the states. Many states enacted the individual state organic agricultural policies. Karnataka state policy on organic farming was enacted in 2004, Kerala organic policy was enacted in 2011 and Sikkim has decided to completely convert to organic by 2015. However, states like Bihar, Uttar Pradesh, West Bengal, etc. have no clear policy framework on organic agriculture. To ensure sustainable development of organic agriculture it is necessary to develop policy recommendations on how a complementary and sustainable development of organic agriculture can be fostered in the different states in view of the Indian National Policy on Organic Production.

To account for the differences in development stage of the organic agriculture sector, institutional framework and social capital in each state and to produce applicable policy innovation, bottom-up approaches to policy design are necessary. When addressing organic agriculture policy in the different states of India, the main objective must be to involve national and state policymakers in identifying the parameters that could guide the further development of the organic agriculture movements in India.

2. Objectives:

The main objectives of this study are to review and analyze the organic agriculture policies from the point of view of all stakeholders, (i.e. producers, intermediaries, consumers, researchers, experts, etc.) and primarily identify some of the innovations in organic agriculture in the selected states for drawing preliminary learning. Further, the objective would be to suggest the planners on possible interventions and programmes for framing an effective organic agriculture policy for India in general and the selected states (of this study) in particular.

Specific objectives:

a. To study the growth and contribution of organic agriculture sector.
b. To analyze the existing organic policies and approaches for implementation in India and selected states.
c. To suggest possible policy interventions and strategies for strengthening organic agriculture movements in India and the selected states.

Justification for the Study:

This research is fully compatible with the PhD title – "a review and analysis of organic agriculture policies in India and strategies for development of the organic sector". This research proposal is based on my previous studies and work experiences in the field of organic agriculture and rural development, particularly in extension. As stated earlier, there is negligible research done in the field of organic agricultural policies and programmes in India, and no proper research has been conducted in holistic paradigms in extension like learning and promotion of innovations. Thus, the impetus to select this topic came from the conviction that learning from innovation and adoption of organic agriculture policies with systems perspective, involving all stakeholders (producers, intermediaries, consumers, researchers & experts) is the key for sustainable development.

3. Hypothesis:

The hypothesis for the study is that there is perceived need for a pro poor and holistic organic agriculture policy by the country in general and accordingly, for each state in particular and by drawing learning from this study and innovations, the policy makers can evolve appropriate and effective plan(s) for sustainable livelihoods.

4. Review of Literature:

Food and Agriculture Organization in its guide book "Save and Grow points out that the present paradigm of intensive crop production cannot meet the challenges of the new millennium (FAO, 2011). The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) in 2008 reported that the way the world grows its food will have to change radically to better serve the poor and the hungry if the world is to cope with a growing population and climate change while avoiding social breakdown and environmental collapse. Shifting to organic agriculture involves a change in the current paradigm of agricultural development.

United Nations Development Programme noted that practicing organic agriculture involves managing the agro-ecosystem as an autonomous system, based on the primary production capacity of the soil under local climatic conditions (UNDP, 1992). Agro-ecosystem management implies treating the system, on any scale, as a living organism supporting its own vital potential for biomass and animal production, along with biological mechanisms for mineral balancing, soil improvement and pest control. Farmers, their families and rural communities, are an integral part of this agro-ecosystem.

According to International Federation of Organic Agriculture Movements (IFOAM), organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved. The National Programme for Organic Production (NPOP), India defined organic agriculture as a system of farm design and management to create an eco system, which can achieve sustainable productivity without the use of artificial external inputs such as chemical fertilizers and pesticides.

The IFOAM's four principles of organic agriculture are given below:

a. *Principle of Health:* organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.
b. *Principle of Ecology:* organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.
c. *Principle of Fairness:* organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.
d. *Principle of Care:* organic agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

Organic agriculture is not to be seen as an end in itself, but rather as a means to healthier soils, plants, animals and people, or a livelihood strategy used to achieve desired livelihood outcomes such as poverty reduction, food security and environmental conservation. Informal indications show that organic producers are more food secure and can sell excess produce, enabling them to educate and clothe their children better than other farmers (Taylor, 2006). A number of recent reports testify to the capacity for organic farming to feed the world population whilst not undermining the natural resource base. There is mounting evidence to show that organic agriculture can enhance productivity and improve access to food and income using low-cost locally available and appropriate technologies without causing environmental damage (Hine & Pretty, 2006; Parrott & Elzakker, 2003; Rundgren, 2002; Scialabba & Hattam, 2002). A report, "The Real Green Revolution", found that organic and agro-ecological farming in less developed countries produces dramatic yield increases, as well as greater crop diversity and greater nutritional content (Parrott & Marsden, 2002). Similarly, a review of over 200 food production projects involving simple, organic type techniques in different countries, found that the adoption of these practices resulted in major yield increases ranging from 46-150% (Pretty et al., 2003). Organic agriculture was found to improve food security by addressing many different causal factors simultaneously and in particular by building up natural resources, strengthening communities and improving human capacity.

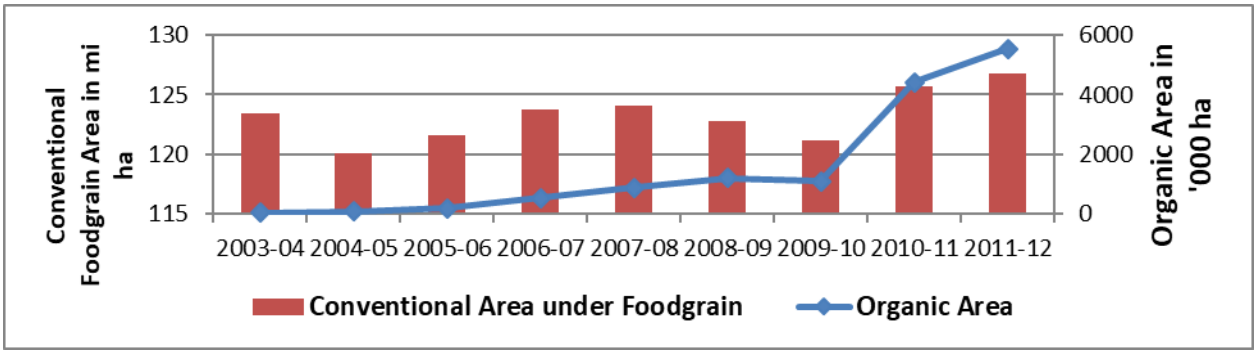
When intervening in organic sector, governments can basically apply policy instruments aimed at increasing the supply of and/or demand for organic food. Supply side policy instruments are, directly or indirectly, aimed at creating incentives for farmers to convert to organic farming. Demand side instruments are, directly or indirectly, aimed at creating increased demand for organic produce (Daugbjerg, 2010).

The Organic Sector in India

In India, the area under organic farming has been increasing exponentially from 0.04 million hectares in 2003-04 to 5.55 million hectares of cultivated land under certification in 2011-12, and produced 3.9 million MT of certified organic products in 2010-11 that included Basmati rice, other cereals, pulses, honey, tea, spices, coffee, oil seeds, fruits, herbal medicines, processed food and value added products and also organic cotton, etc. with involvement of around 10 million farmers.

As per the Agricultural and Processed Food Products Export Development Authority (APEDA), India exported 300 organic items with a total volume of 115,417 MT and realization of INR Rs. 8.39 billion in 2011-12 and the export market for Indian organic products is expected to grow at 60-70% per annum in the coming years. Further, with growing consumer consciousness in India the demand for organic food is increasing at 20-22% per annum (Yes Bank, 2013). The figure 1 indicates the comparative growth in land area under conventional and organic agriculture.

Figure 1: Comparative growth in land area under conventional and organic agriculture



Initiatives in organic agriculture in India

The organic sector in India has been mainly driven by NGOs, farmer organizations (supported by NGOs), agripreneurs and private business groups. Government too has been playing an important role in promoting organic agriculture.

Government Initiatives in India

The National Programme on Organic Production (NPOP) was launched in 2000. NPOP provides information on standards for organic production, systems criteria & procedures for accreditation of inspection & certification bodies, national logo and legislation governing its use. The "India Organic" logo was launched in 2002. The Central sector scheme National Project on Organic Farming (NPOF) launched in April 2004. The National Centre of Organic Farming (NCOF) was established in 2004-05 at Ghaziabad to implement NPOF. Further, six Regional Centres of NCOF was established at Bangalore, Bhubaneshwar, Hissar, Imphal, Jabalpur & Nagpur.

Learning from innovations in organic agriculture

The linear models of agricultural extension frameworks focused primarily on the role of education, research and extension in supplying new knowledge and technology to the farmer. Identifying the most promising investments and policy interventions for crop and livestock development has become a more difficult task as the objectives have shifted from increasing outputs and yields to transforming agriculture into a more responsive, dynamic and competitive sector. Innovation is vital to promoting agriculture and rural development and poverty reduction and an increasingly popular mode of analysis to this end is the study of agricultural innovation from a systems perspective (Spielman and Birner, 2008, World Bank, 2011). Innovation is defined as the process by which individuals or organizations master and implement the design and production of goods and services that are new to them, irrespective of whether

they are new to their competitors, their country, or the world. And innovation system is a network of organizations, enterprises, and individuals focused on bringing new products, new processes and new forms of organization into economic use, together with the institutions and policies that affect their behavior and performance (World Bank, 2006). The agricultural innovation system approach is holistic and includes the farmer as part of a complex network of heterogeneous actors engaged in innovation processes, along with the formal and informal institutions and policies environments that influence these processes (Spielman and Birner, 2008). Furthermore, empirical research is needed to understand the capacity challenges of public and private extension systems as an instrument for innovation (Chowdhury, et al. 2012) so as to transform them into playing an effective role in assisting Indian farmers.

Agricultural extension services (in the public as well as private sector) need to play a much larger role in assisting farmers in meeting the challenges, i.e. apart from advice and information on production technologies, farmers need a wide range of services, with improved access to markets, research, credit, infrastructure and business development services; partnerships of the main public sector extension agency with a number of different organizations in the public and private sector to access the wide range of skills with public sector extension facilitating information flow across different organizations; decentralized planning at districts with support in terms of skill development and resources to develop extension plans; larger degree of flexibility in public sector extension to provide a greater degree of flexibility to field level officers at the block and circle levels; farmer SHGs as viable economic organizations; learning environment; and resources or funding support (Sulaiman, 2003).

The linear research–development–extension approach has been much criticized for being hierarchical, top-down and supply-driven, and for its limited impacts on the generation and diffusion of relevant knowledge and technologies. The emerging reforms and changes in knowledge structure of agriculture explicitly indicate that the traditional agricultural research and extension system alone cannot sufficiently address the challenges of the new trends (Agwu et al., 2008). Innovation is a successful introduction and exploitation of knowledge and technologies for social and economic benefits. The use of such knowledge and technologies brings about positive changes in how people make or do things, and ultimately improves their livelihoods (Ayele et al., 2012). The more recent paradigm for knowledge generation and use is the innovation system approach (Lundvall et al. 2002; Clark et al. 2003; World Bank 2007; Rajalahti et al. 2008; Spielman et al. 2009), described as a network of private and public sector organizations whose interactions produce, diffuse and utilize economically useful knowledge. For innovation systems thinkers, innovation of different kinds (technical, institutional etc.) follows a non-linear process and uses multiple sources of knowledge (Ayele et al., 2012). Innovation system approach offers a holistic and, multi-disciplinary approach to innovation and processes, incorporating emerging reforms and approach for agricultural development. It provides an analytical

framework that explores complex relationships among heterogeneous agents, social and economic institutions, and endogenously determined technological and institutional opportunities. It demonstrates the importance of studying innovation as a process in which knowledge is accumulated and applied by heterogeneous agents, through complex interactions that are conditioned by social and economic institutions (Agwu et al., 2008).

5. Methodology:

Selection of the states: Two states would be selected using stratified random sampling mainly on the basis of diversity of agro-ecology and agricultural production systems and also advancements in organic agriculture.

A detailed scanning of secondary sources, including review of reports, manuals, brochures, research papers, published and unpublished data/information, documents, etc. from government and private sources, personal communication, discussion and observation (wherever possible) would be the methods undertaken for documentation of the contribution of organic agriculture and to get initial insights and analysis of the existing organic policies and approaches for implementation in India and selected states.

In order to measure innovation inputs, processes, and outcomes, it is necessary to first develop a conceptual framework that captures the essential elements of a national agricultural innovation system, the linkages between its components, and the institutions and policies that constitute the enabling environment for innovation (Spielman and Birner, 2008). The application of innovation system analytical framework to agriculture is becoming popular and gaining interest, particularly among policy makers and planners (Agwu, 2008). The innovation systems framework emphasizes, among other things, the totality of actors and factors required to bring about innovation and growth (World Bank 2007).

In light of the above, for this study, review of the states would be conducted to construct a conceptual/analytical framework for the analysis. The framework would form the basis of field research and data collection. Empirical data would be collected from the respondents using appropriate exploratory and qualitative methods like case studies, semi-structured interviews, focus group discussion and personal informal discussion, etc. General observation during visits to field would also be important sources for information. Further, relevant and available reports, documents, research papers etc. would be referred for the purpose of the study. Data would be analyzed by explorative techniques and report the descriptive statistic(s).

The respondents for the study would be selected to represent the diversity of stakeholders in organic agriculture sector that include:

- Policy makers: from agricultural, horticultural, environmental, rural development, economic/finance sectors
- Organic sector representatives: farmers, certification bodies, NGOs, agro business representatives (processors, marketing, distribution)
- Other non organic sector representatives: general farmer organizations/ cooperatives, environmental protection agencies, NGOs, consumer organizations (if available)
- Third parties: advisors, academics, other experts (journalists, consultants, etc.)

Based on the analysis and conclusions drawn from the proposed study, and discussion with experts and relevant stakeholder(s) appropriate policy interventions, strategies and plans for strengthening organic agriculture movements would be developed.

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